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TITLE: "Understanding the Impact of Having a Military Father with Post Traumatic Stress Disorder (PTSD) on Adolescent Children"

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CONTRACTING ORGANIZATION: King's College, London London, UK SE5 9

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13. SUPPLEMENTARY NOTES**14. ABSTRACT**

The primary objective of the study is to understand the impact of having a military father on adolescent children. We will examine the influence of paternal PTSD on adolescent children's emotional wellbeing and behavior and investigate whether adolescents whose fathers have PTSD experience a higher prevalence of psychiatric disorders, as measured by the Development and Well-Being Assessment (DAWBA), compared to those whose fathers do not have PTSD. We will also examine the influence paternal PTSD has on parent-child communication, family dynamics and functioning. In families where the father has PTSD, we will look at the quality of the relationship (as measured by the Five Minute Speech Sample and Hot Topics paradigms) and check for impaired family dynamics and functioning as measured by the Family Assessment Device (FAD) compared to families where the father does not have PTSD. Initial analyses have shown a moderately high level of adolescent mental health problems (approximately 30%), 30% of families with poor functioning and 11% of fathers with high levels of expressed emotion.

Secondary aims are 1) examine the effect of specific symptoms of PTSD (avoidance, anger/hostility/emotional numbing) on adolescent emotional wellbeing 2) develop digital techniques to identify emotional wellbeing in audio-visual data. We believe that adolescents of fathers with prominent anger/hostility symptoms will experience a higher prevalence of oppositional defiant/conduct disorder (as measured by the DAWBA) compared to those whose fathers do not have these PTSD symptoms; adolescents of fathers with prominent avoidance/numbing symptoms will experience a higher prevalence of depressive disorders (as measured by the DAWBA) compared those whose fathers do not have these PTSD symptoms. Further, we believe it is possible to identify emotional wellbeing identifiers in the audio-visual data collected during the study. We will determine the moderating effect of gender on paternal PTSD by investigating whether the impact of having a father with PTSD is greater in male adolescents (based on all measures).

15. SUBJECT TERMS

Post-Traumatic Stress Disorder (PTSD), Military Families, Adolescents, Mental Health, Emotional Wellbeing, Family Functioning, Natural Language Processing

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1. INTRODUCTION:

Military children and adolescents are exposed to a range of stressors that are not experienced by their civilian counterparts, namely separation from a parent during deployment, frequent moves and locations, and exposure to a parent who may return from deployment with physical or psychological injury, including post-traumatic stress disorder (PTSD). Since 2001, over 700,000 United States (US) children have experienced the deployment of a parent to Iraq or Afghanistan. A major concern for policy makers is how these deployments impact on the psychosocial development and wellbeing of military offspring. To date there has been a dearth of quality investigation and research in this area. The primary objective of the study is to understand the impact of having a military father on adolescent children. We will examine the influence of paternal PTSD on adolescent children's emotional wellbeing and behavior and investigate whether adolescents whose fathers have PTSD experience a higher prevalence of psychiatric disorders, as measured by the Development and Well-Being Assessment (DAWBA), compared to those whose fathers do not have PTSD. We will also examine the influence paternal PTSD has on parent-child communication, family dynamics and functioning. In families where the father has PTSD, we will look at the quality of the relationship (as measured by the Five Minute Speech Sample and Hot Topics paradigm) and check for impaired family dynamics and functioning as measured by the Family Assessment Device (FAD) compared to families where the father does not have PTSD. Finally, we will propose a digital framework to identify emotional wellbeing identifiers from audio-visual data.

2. KEYWORDS:

Post-Traumatic Stress Disorder (PTSD), Military Families, Adolescents, Mental Health, Natural Language Processing (NLP)

3. ACCOMPLISHMENTS:

Progress Summary: Year 2 Objectives:

- Adequate response rates to study ensured by actively following up all families with eligible children and finding up to date contact details for the majority of fathers who were hard to trace (primarily service-leavers). Data collection completed January 2017. 105/100 families recruited.
- 12-month extension with funds (\$182,134.00) granted 05 October 2017 to conduct further investigation (no data collection), taking the study end to 31th October 2018
- SPACE study discussed at the Veterans' Mental Health Conference, with His Royal Highness Prince Harry in attendance (see Appendix 1, attached to the emailed annual report).
- SPACE study presented at Canadian Institution for Military and Veteran Health Research Conference (see Appendix 2, attached to the emailed annual report).
- Reliability and validation coding for the Five Minute Speech Sample, Hot Topics, Development and Wellbeing Assessment and Audio video data completed July 2017.

- Analysis of the Five Minute Speech Sample, Development and Wellbeing Assessment, Hot Topics and Audio video data was complete by July 2017 according to requirements stipulated in the SoW requirements.
- Secured external funding (source: The Royal British Legion) to recruit a doctoral student to assist in data analyses.

Delays in Progress of Year 2 Objectives, plus plan for resolution:

- *Delay 1: Commencement of data analysis, report and paper writing*
Data analysis is underway. Report and paper writing commence once the team has been re-established.
- *Delay 2: Reduced working hours*
NP has worked reduced hours (April – July 2017) on the project resulting in a delay in completion of coding of the study data.

Training and professional development opportunities Year 2:

Course/Training	Date	Attendees
Hot Topics training with Professor Tom O'Connor	April and June 2017	NP

Planned activity for the final months of project

Conduct analyses and submit findings to a leading peer review journal.
Development of a digital framework to identify emotional wellbeing markers.

4. IMPACT:

When complete, this study will provide data and digital frameworks for US and UK military stakeholders on paternal PTSD and its effects on military children aged 11-17 years. This research will yield unique data, as there are no studies published to date which have collected data using a range of methodologies. This study aims to overcome a few limitations seen in previous research by using multi-informant measures to assess adolescent wellbeing and development, as well as family functioning.

5. CHANGES/PROBLEMS:

In October 2016 a second three-month EWOFF took the study end date to 31 March 2017 from the scheduled end date of 31 December 2016. Problems with IT outage at King's College London were overcome during this time by the recruitment of five further families into the study.

We could not access our study database for 6 weeks from 17 October 2016, and video data on five families were lost, which meant that data collection did not actually finish until January 2017.

6. PRODUCTS/PRESENTATIONS:

- SPACE study discussed at the Veterans' Mental Health Conference, with His Royal Highness Prince Harry in attendance (see Appendix 1, attached to the emailed annual report).
- • SPACE study presented at Canadian Institution for Military and Veteran Health Research Conference (see Appendix 2, attached to the emailed annual report).

7. PARTICIPANTS AND OTHER COLLABORATING ORGANIZATIONS:

Name	Project Role	Institution	Nearest person month worked	Contribution to project
Dr Benjamin Baig	Child Psychiatrist	IOPPN, King's College London	2	On-call clinician
Professor Tom O'Connor	Scientific Advisor	University of Rochester, New York	1	Advises on methodology (Hot Topics)
Melanie Chesnokov	Study Coordinator	IOPPN, King's College London	6	Co-ordinated study
Prof Nicola Fear	Principal Investigator	IOPPN, King's College London	12	Project oversight
Ms Zoe Chui	Research Assistant	IOPPN, King's College London	3	Data collection
Dr Trevor Hicks	Psychiatrist	Chambers Psychiatric Services Ltd (formerly Consultant Psychiatrist at RAF Brize Norton	1	Independent Medical Officer

Mr Nathan Parnell	Research Assistant	IOPPN, King's College London	12	Data collection
Dr Paul Ramchandani	Child Psychiatrist	Imperial College London	1	Study design/planning
Prof Alan Stein	Child Psychiatrist	Oxford University	1	Study design/planning
Ms Anna Verey	Research Assistant	IOPPN, King's College London	6	Data collection
Professor Sir Simon Wessely	Scientific Advisor	IOPPN, King's College London	1	Advisor on design and methodology
Dr Dan Leightley	Postdoctoral Researcher	IOPPN, King's College London	10	Software development (natural language processing)

8. SPECIAL REPORTING REQUIREMENTS:

YEAR 2 QUAD CHART (Phase 1: SPACE Study)

Understanding the Impact of Having a Military Father on Adolescent Children

14309001

W81XWH-14-1-0079

PI: Professor Nicola Fear

Org: King's College London

Award Amount: \$1,197,128



Study/Product Aim(s)

Overall study objective: To conduct an in-depth examination to determine the influence of paternal PTSD on adolescent emotional wellbeing and behavior.

Primary aims:

To examine the influence of paternal PTSD on adolescent emotional wellbeing and behavior.
To examine the influence paternal PTSD has on parent-child communication, family dynamics and functioning

Approach

A two group comparison study comparing emotional well-being and behavior in adolescents who have a father with PTSD with a group of adolescents whose fathers do not have a mental health diagnosis



Data collection successfully completed with 105 families

Timeline and Cost

Activities	CY	1	2
Establish a research team			
Develop questionnaires			
Procedure to access sample			
Ensure adequate response rate			
Estimated Budget (\$K)		\$609	\$588

Updated: 19 October 2017

Milestones – Delays to milestones in red

CY1: Milestone 1 – study staff recruited; Milestone 2 – staff trained; Milestone 3- UK MoDREC ethics approval gained, protocol submitted to HPRO IRB; Milestone 4 – data collection tools finalised; Milestone 5 – study documentation finalised; Milestone 6 – study piloted on 5 families ; Milestone 7 – identify study sample; Milestone 8 – update contact details of sample; Milestone 9 – start data collection; Milestone 10 – on-going data collection. **CY2:** Milestone 11- active follow-up of non-respondents; Milestone 12 – achieve adequate response rate; Milestone 13 – start data entry; Milestone 14 – generate final linked dataset; Milestone 15 – complete data collection; Milestone 16 – finalise analytical strategy; **Milestone 17 – carryover phase 2 – undertake data analysis; Milestone 18 – carryover phase 2 – final report submitted to funding agency; Milestone 19 – carryover phase 2 – academic papers written and submitted. Budget Expenditure to Date:** Projected Expenditure: \$1,197,128 (Year 1 \$608,968; Year 2 \$588,160); Actual Expenditure: \$1,197,128

YEAR 3 QUAD CHART (Phase 2: SPACE Study)

Understanding the Impact of Having a Military Father on Adolescent Children (Phase 2)

14309001

W81XWH-14-1-0079



PI: Professor Nicola Fear

Org: King's College London

Award Amount: \$182,134

Study/Product Aim(s)

Overall study objective: A 12-month pilot study performing an analysis of audio and visual data to identify common mental health disorders in adolescents

Primary aims:

To develop a framework to encode and transcribe the language used by adolescents and the father when in a 'Hot Topic' conversation. Then, to evaluate the transcribed language to identify the adolescents' mental and emotional state

Approach

A set of state-of-the-art computer science algorithms will be developed to identify identifiers in the transcribed language



Data collection successfully completed with 105 families

Timeline and Cost

Activities	Months	1	6	12
Recruit Research Assistant		■		
Development of the framework		■	■	
Evaluate framework				■
Public engagement/dissemination		■	■	
Estimated Budget (\$K)		\$91,067		\$91,067

Updated: 19 October 2017

Milestones: 1) data validation protocol developed and implementation. 2) finalization of SPACE dataset ready for analyses. 3) Development of audio-to-text framework with prototype interface. 4) Pilot encoding framework with user input. 5) Report on the outcome of the evaluation. 6) Undertake analyses. 7) Write academic report. 8) Continuous blog posting. 9) Newsletter to participants.

Budget Expenditure to Date (Oct 19th 2017): Projected Expenditure: \$182,134.00; Actual Expenditure: \$18,213.40

9. OTHER ACHIEVEMENTS:

10. REFERENCES:

11. APPENDICES:

APPENDIX 1:

Sent as a separate PDF attachment to this report.

APPENDIX 2:

Sent as a separate PDF attachment to this report.

News

Prince Harry joins Veterans' Mental Health Conference

Posted on 16/03/2017



Prince Harry meeting (from left-to-right): Neil Greenberg, Nicola Fear, Simon Wessely and Robert Lechler.

Prince Harry attended the Veterans' Mental Health Conference at King's College London today (Thursday 16 March), where he led a panel discussion with three veterans on the benefits of having open conversations about mental health and getting the right support.

Organised by [King's Centre for Military Health Research \(KCMHR\)](#) and sponsored by the [Forces in Mind Trust \(FiMT\)](#), the annual event gathered leading experts to discuss international perspectives on mental health in the Armed Forces.



From left-to-right: Philip Eaglesham, Prince Harry, Ivan Castro and Caroline Buckle.

Speaking at the event, Prince Harry said: 'The assumption is that 90 per cent of veterans have mental illness from service – this simply isn't true – research by King's [College London] puts it at 10 per cent. Phrases like 'ticking time-bomb' fuel this misconception and are incredibly unhelpful. More people are accessing help now than ever before, which clearly states that we must be doing something right by reducing the stigma. But of course we still have a lot of work to do.'

'PTSD as far as I see it is shorthand for mental illness in the Armed Forces – it's just too simple. What I mean by that is it's not always the right diagnosis for everyone. Most who face issues will experience common conditions like depression, anxiety and adjustment disorders... my main fear is that people will not get the appropriate help due to the stigma surrounding the more common conditions.'

His Royal Highness added: 'We need to improve the conversation. We all have mental health, in the same way that we all have physical health. We worry about our physical fitness probably now more than we ever have before – but our mental fitness is just as important.'

Prince Harry joined the conference as part of the [Heads Together](#) campaign to change the conversation on mental health, which he leads with The Duke and Duchess of Cambridge, and which includes [Contact](#), the military community mental health coalition.

FACULTY/PRESENTER DISCLOSURE

Faculty: Professor Nicola T Fear

Relationships with commercial interests:

- Grants/Research Support: UK Ministry of Defence, US Department of Defense, Medical Research Council, Economic and Social Research Council, Help for Heroes, The Royal British Legion, Forces in Mind Trust, Army Families Federation, Greenwich Hospital, Department of Veterans Affairs (Australia), Sodexo
- Other: Trustee of a veteran's welfare programme, expert panel member of the Families in Stress Covenant Funding Panel



MILITARY FAMILIES: THE IMPACT OF PATERNAL PTSD & ALCOHOL MISUSE

Professor Nicola Fear
King's College London

WHY ARE WE INTERESTED IN THE IMPACT OF [PATERNAL] PTSD & ALCOHOL MISUSE?

Both can be debilitating, long term conditions
Both can impact on functioning – social, occupational, relationship

Can be co-morbid which effects ability to engage with treatment

Prevalence of probable PTSD in the UK military community approx. 6%
Prevalence of alcohol misuse in the UK military community approx. 16%

Impact on immediate family?

FAMILIES ARE IMPORTANT

- Impact on them and their functioning
- Change in role from spouse/partner/child to "care giving" role
- Increased and changes in household duties



KCMHR family focused studies

KCMHR military cohort n=9990, c5000 fathers

- 4% with probable PTSD
- 13% with alcohol misuse

KCMHR Welfare of Children of Military Fathers (KIDS) Study

- 621 fathers, 395 mothers, data on 1044 children aged 3-16 years

SPACE Study

- 126 families
- Selected from KIDS study families with eligible children aged 11-17 years

WIS FAMILIES STUDY

Qualitative study of spouses/partners of Wounded, Injured or Sick (WIS) Service personnel to explore support used, support needed and gaps in provision (n=20)

To focus here on those in a relationship with someone with a mental health condition



PRELIMINARY RESULTS



- ✓ 11% of fathers displaying expressed emotion
- ✓ Evidence to suggest that 25% of fathers with probable PTSD are displaying expressed emotion
- ✓ Evidence of an association between expressed emotion and family functioning

next steps



Are parental mental health problems associated with adolescents outcomes?

How well are these families communicating and functioning?

What is the role of military/deployment experiences?

Implications for service provision and intervention

THE HUFFINGTON POST

THE BLOG

The Story of the Military Child: Why society is getting it wrong and how it's hurting military kids

© 13/01/2016 08:47 AM GMT (Updated Mar 01, 2016)

A military kid's life is so much more than deployments and moving.

We owe these kids more. We need to talk about the positives of being a part of a military family. But there's a reason this story doesn't get as much press, and the result may be causing a lot of unrecognized harm.

CONCLUDING POINTS



Military families are faced a range of challenges which can impact on their ability to function as a family

A robust evidence base is needed to develop & deliver effective support & services

THANK YOU



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He opened the event by leading a panel discussion with three former members of the UK and US Armed Forces: Caroline Buckle, Ivan Castro and Philip Eaglesham. During the group discussion the veterans each spoke about their personal experiences of addressing and managing mental health challenges, and the importance of the Armed Forces community working together to encourage an open attitude about mental health.

This year's KCMHR conference focused on issues ranging from the use of peers to improve treatment-seeking and the mental health of and support for service families, to whether veterans' mental health care should be part of mainstream services.

Speakers from the public health, academic and Service charity sectors provided expert insights and the latest research findings, including: Capt US Navy (Rtd) Robert Koffman from the Semper Fi Fund and Warrior Canine Connection, on the therapeutic benefits of animals to improve veterans' mental health; and Professor (Col) Eric Vermetten of Leiden University, on genetics and other novel therapies in the mental health of service veterans.

Speakers from King's included Professor Wyn Bowen, Professor Sir Simon Wessely, Professor Nicola Fear, Dr Sharon Stevelink and Professor Neil Greenberg.

Neil Greenberg, Professor of Defence Mental Health at King's College London, said: 'We set up this annual conference three years ago in order to provide high quality evidence and informed debate at a reasonable cost for those interested in this important topic. We were delighted to welcome Prince Harry to the conference this year as well as a range of other excellent speakers. Once again the event was completely sold out, which highlights how much interest there is in understanding 'what the truth is' in what can sometimes be a rather poorly understood subject.

'We are highly appreciative that the Forces in Mind Trust agreed to sponsor the event again and the whole of the King's Centre for Military Health Research team remains proud of the work we do to improve the lives of service personnel, serving or retired, and their families.'

Ray Lock, Chief Executive of the Forces in Mind Trust, said: 'We are delighted that Prince Harry attended and participated in this year's Veterans' Mental Health Conference, and welcome the 'Heads Together' campaign's contribution to tackling the stigma surrounding mental health. Overcoming stigma and preconceived negative ideas about mental health is a vital element we must overcome if we are to succeed in improving veterans' mental well-being. We are once again proud to have been sole sponsor of this important knowledge sharing and networking event.'

Notes to editors

The Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London runs a War & Psychiatry MSc course, which aims to develop skills and knowledge about the way people, both in the Armed Forces and civilians, respond to psychological trauma. Find out more on the King's College London website: <http://www.kcl.ac.uk/study/postgraduate/taught-courses/war-and-psychiatry-msc.aspx>

For further media information please contact Jack Stonebridge, Senior Press Officer, Institute of Psychiatry, Psychology & Neuroscience, King's College London on jack.stonebridge@kcl.ac.uk or 020 7848 5377.

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